

QUANTUM DOT INFRARED PHOTODETECTOR AND METHOD  
FOR FABRICATING THE SAME

## ABSTRACT OF THE DISCLOSURE

5 A method for fabricating a quantum dot infrared photodetector by  
using molecular beam epitaxy is provided. The method includes steps of  
growing a first gallium arsenide layer as a buffer layer on a gallium  
arsenide substrate, growing a first undoped aluminum gallium arsenide  
layer as a blocking layer on the first gallium arsenide layer, growing a  
quantum dot structure layer on the first undoped aluminum gallium  
arsenide layer at a specific temperature, and growing a second gallium  
arsenide layer as a contact layer on the quantum dot structure layer.  
10